Claim Amendments

1-20. (canceled)

21. (new) A method of vaccinating a living being to protect against infectious diseases caused by intracellular infection germs using a vaccine comprising a DNA expression construct operable in eukaryotic cells; said DNA expression construct comprising a covalently-closed, linear, dumbbell-shaped deoxyribonucleic acid molecule; said deoxyribonucleic acid molecule comprising a linear double-stranded region; said double-stranded region comprising single strands being linked by a short, single-stranded loop consisting of deoxyribonucleic acid nucleotides; said double-strand-forming single strands comprising: a terminator sequence, and a coding sequence for one or more antigens under the control of a promoter that is configured to be operable in the living being that is to be vaccinated; and said DNA expression construct is linked covalently to one or more oligopeptides to increase transfection efficacy; said method comprising the steps of:

intradermally injecting said vaccine comprising said DNA

expression construct into a living being; and

eliciting, with said DNA expression construct of said injected vaccine, a type 1 cellular mediated immune response in the living being against intracellular infection germs that cause infectious diseases.

22. (new) The method of vaccinating a living being as claimed in Claim 21, wherein said construct encodes the hepatitis small surface antigen (HBsAg).

23. (new) The method of vaccinating a living being as claimed in Claim 22, wherein the oligopeptide is of a length of five to 25 amino acids and at least half of the amino acids are a member of the group consisting of lysine and arginine.

24. (new) The method of vaccinating a living being as claimed in Claim 23, wherein the oligopeptide comprises a nuclear localization sequence.

25. (new) The method of vaccinating a living being as claimed

in Claim 24, wherein the oligopeptide comprises the sequence PKKKRKV (proline - lysine - lysine - lysine - arginine - lysine - valine) (SEQ ID NO. 4).

26. (new) The method of vaccinating a living being as claimed in Claim 25, wherein said step of intradermally injecting said vaccine comprising said DNA expression construct into a living being comprises intradermally injecting said vaccine comprising said DNA expression construct into an animal or a human being.

27. (new) The method of vaccinating a living being as claimed in Claim 24, wherein the oligopeptide comprises the sequence YGRKKRRQRRR (SEQ ID NO. 3).

28. (new) The method of vaccinating a living being as claimed in Claim 27, wherein said step of intradermally injecting said vaccine comprising said DNA expression construct into a living being comprises intradermally injecting said vaccine comprising said DNA expression construct into an animal or a human being.

29. (new) A vaccine comprising:

a type 1-cellular-mediated-immune-response-eliciting vaccine being configured to be intradermally injected into a living being to protect against infectious diseases caused by intracellular infection germs;

said type 1-cellular-mediated-immune-response-eliciting vaccine comprising:

a DNA expression construct being configured to operate in eukaryotic cells;

said DNA expression construct comprising a covalently-closed, linear, dumbbell-shaped deoxyribonucleic acid molecule;

said deoxyribonucleic acid molecule comprising a linear double-stranded region;

said double-stranded region comprising single strands being linked by a short, single-stranded loop consisting of deoxyribonucleic acid nucleotides;

said double-strand-forming single strands comprising:

a terminator sequence, and

a coding sequence for one or more antigens under the control of a promoter that is configured to be operable

in the living being that is to be vaccinated;

at least one oligopeptide; and

said DNA expression construct being linked covalently to said at least one oligopeptide to increase transfection efficacy.

30. (new) The vaccine as claimed in Claim 29, wherein said vaccine is configured to be injected in a solution.

31. (new) The vaccine as claimed in Claim 30, wherein said vaccine is configured to be injected in human beings.

32. (new) A method of vaccinating a living being to protect against infectious diseases caused by intracellular infection germs using a vaccine comprising a DNA expression construct operable in eukaryotic cells; said DNA expression construct comprising a covalently-closed, linear, dumbbell-shaped deoxyribonucleic acid molecule; said deoxyribonucleic acid molecule comprising a linear double-stranded region; said double-stranded region comprising single strands being linked by a short, single-stranded loop comprising deoxyribonucleic acid nucleotides; said double-strand-forming single

strands comprising: a terminator sequence, and a coding sequence under the control of a promoter that is configured to be operable in the living being that is to be vaccinated; and said DNA expression construct is linked covalently to one or more oligopeptides to increase transfection efficacy; said method comprising the steps of:

intradermally injecting said vaccine comprising said DNA expression construct into a living being; and

eliciting, with said DNA expression construct of said injected vaccine, a type 1 cellular mediated immune response in the living being against intracellular infection germs that cause infectious diseases.

33. (new) The method of vaccinating a living being as claimed in Claim 32, wherein said construct encodes the hepatitis small surface antigen (HBsAg).

34. (new) The method of vaccinating a living being as claimed in Claim 33, wherein the oligopeptide is of a length of five to 25 amino acids and at least half of the amino acids are a member of the group consisting of lysine and arginine.

35. (new) The method of vaccinating a living being as claimed in Claim 34, wherein the oligopeptide comprises a nuclear localization sequence.

36. (new) The method of vaccinating a living being as claimed in Claim 35, wherein the oligopeptide comprises the sequence PKKKRKV (proline - lysine - lysine - lysine - arginine - lysine - valine) (SEQ ID NO. 4).

37. (new) The method of vaccinating a living being as claimed in Claim 36, wherein said step of intradermally injecting said vaccine comprising said DNA expression construct into a living being comprises intradermally injecting said vaccine comprising said DNA expression construct into an animal or a human being.

38. (new) The method of vaccinating a living being as claimed in Claim 35, wherein the oligopeptide comprises the sequence YGRKKRRQRRR (SEQ ID NO. 3).

39. (new) The method of vaccinating a living being as claimed

in Claim 38, wherein said step of intradermally injecting said vaccine comprising said DNA expression construct into a living being comprises intradermally injecting said vaccine comprising said DNA expression construct into an animal or a human being.

40. (new) The method of vaccinating a living being as claimed in Claim 32, wherein said step of intradermally injecting said vaccine comprising said DNA expression construct into a living being comprises intradermally injecting said vaccine comprising said DNA expression construct into an animal or a human being.